



# EIGHT TIPS WHEN USING OIL-BASED PESTICIDES DURING SUMMER

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Often, growers fear using a horticultural oil-based pesticide during summer - hot and humid adverse conditions - because it is associated with phytotoxicity, or burn symptoms. In fact, when misused on sensitive plant species, possible side effects can scare growers away from horticultural oils. Growers wish horticultural oils were less phytotoxic and could be applied to their plants all year long without having to worry about phytotoxicity.

Fortunately, these concerns can be managed and addressed with proper use and awareness. It's important to understand horticultural oils, know how they work, and what type best suits a particular need.

Kemin Crop Technologies offers expert tips to help you most effectively incorporate horticultural oils into your IPM program.

## EXPERT TIPS

### ➡ TIP#1 Know your crops



The first thing to consider is the crops you are growing, because if the crop changes, so too should the program. Researching the most common issues and the most prevalent pests on crops at certain times of the year is a foundational step for designing a spray program.

### ➡ TIP#2 Know the products in your IPM Program



Avoid the use of oils in combination with sulfur or sulfur-containing pesticides, as elemental sulfur can stay present on plants for long periods of time. If oils are applied when it is still present, the two will react to form phytotoxic compounds. Label directions on most oils prohibit their use within 30 days of sulfur application. Record all the products you typically avoid when temperatures increase. Monitoring how often you use them in rotations can help prevent this type of plant injury.

### ➡ TIP#3 Know your environment



In general, oils and chemicals should not be applied when plants are in excessive heat (when the temperature is above 90° F), full sun, high humidity or below-freezing temperatures because these conditions can increase the odds of plant injury from horticultural oils. Instead, it is suggested to spray when it is cool, dry and the wind conditions are calm. It is important to know that leaf temperature can be significantly different from the actual air temperature. When ambient air temperature starts getting higher, the surface temperature of a respiring plant leaf is typically cooler, as long as the plant is well hydrated and the relative humidity is low. Growers should measure the temperature on the leaf surface to see if it's actually under 90° F to avoid potential leaf burn.

### ➡ TIP#4 Read the label



When applying any chemical, the primary consideration is doing so in accordance with its label. Take the recommended precautions regarding sensitive plants and combining pesticides; the label will include these steps that must be followed to avoid issues. The oils should be mixed precisely at the right dilution rate to prevent plant damage.

### ➡ TIP#5 Test your products



To check if horticultural oils will burn your foliage, apply it to a few specimen plants during severe conditions. Monitor all the data you collect from this test, including the conditions of the plants before and after application, the environmental conditions, what time of day application took place, etc.

### ➡ TIP#6 Adjust your application time



The hot season does have an optimal time for using horticultural oils. You need to adjust the application time of horticultural oils to be during the evenings, after sunset or early in the morning before the temperatures rise above 90°F. This optimal timing will also help avoid contact with foraging bees or other day-active beneficials. It is recommended to avoid application before an expected rain event or topical irrigation that will wash the leaves following use.

### ➡ TIP#7 Revise your spray coverage



Contact of the oil during application is critical for efficacy. Ensure that the oil is sprayed in an even coat at the appropriate temperature on healthy, unstressed plants to ensure the best results. Missed leaf undersides or small cracks can provide a safe refuge for pests. The use of a water sensitive paper is a good method to check the full spray coverage.

### ➡ TIP#8 Ask an Expert



At Kemin Crop Technologies, we have plenty of tips and good practices to help you incorporate horticultural oils into your IPM and get past any fears you may have. Don't hesitate to ask our Technical Service Manager to help you understand how a horticultural oil can provide safe pest control without phytotoxicity.



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Always read and follow the entire label direction before use. Use strictly in accordance with precautionary statements and direction.

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